In the Claims:

1. (Currently amended) Electronic circuit, comprising: a first MOSFET and a second MOSFET; wherein the first MOSFET and the second MOSFET are arranged parallel to each other; wherein the first MOSFET has a first resistance when it is switched on and the second MOSFET has a second resistance when it is switched on; a temperature sensor for measuring at least one of a first temperature of the first MOSFET and a second temperature of the second MOSFET; and a MOSFET resistance control circuit for individually controlling at least one of the first resistance of the first MOSFET and the second resistance of the second MOSFET based at least partly on measured temperature provided from the temperature sensor.

2. (Currently amended) The electronic circuit of claim 1, wherein the MOSFET resistance control circuit comprises a gate voltage control circuit for individually controlling at least one of a first gate voltage of the first MOSFET and a second gate voltage of the second MOSFET to ~~thereby~~ control at least one of the first resistance of the first MOSFET and the second resistance of the second MOSFET.

3. (Original) The electronic circuit of claim 2, wherein the gate voltage control circuit controls the at least one of the first and second voltages such that at least one of the first and second resistances, first and second currents flowing through the first and second MOSFETs and first and second temperatures of the first and second MOSFETs are adjusted to each other.

4. (Original) The electronic circuit of claim 2, further comprising a current measuring unit for measuring at least one of a first current flowing through the first MOSFET and a second current flowing through the second MOSFET; wherein the gate voltage control circuit is adapted to individually control the at least one of the first and second voltages on the basis of at least one of the first and second currents.

5. (Currently amended) ~~The electronic circuit of claim 2, further comprising~~ Electronic circuit, comprising: a first MOSFET and a second MOSFET; wherein the first MOSFET

and the second MOSFET are arranged parallel to each other; wherein the first MOSFET has a first resistance when it is switched on and the second MOSFET has a second resistance when it is switched on; and a MOSFET resistance control circuit for individually controlling at least one of the first resistance of the first MOSFET and the second resistance of the second MOSFET;

wherein the MOSFET resistance control circuit comprises a gate voltage control circuit for individually controlling at least one of a first gate voltage of the first MOSFET and a second gate voltage of the second MOSFET to control at least one of the first resistance of the first MOSFET and the second resistance of the second MOSFET; and

a temperature sensor for measuring at least one of a first temperature of the first MOSFET and a second temperature of the second MOSFET; wherein the gate voltage control circuit is adapted to individually control the at least one of a first and second voltages on the basis of the at least one of the first and second temperatures.

6. (Original) The electronic circuit of claim 5, wherein the gate voltage control circuit controls the at least one of a first and second voltages only when one of the first and second temperatures exceeds a first preset threshold value.

7. (Original) The electronic circuit of claim 5, wherein the temperature sensor is adapted for measuring the first temperature and the second temperature; and wherein the gate voltage control circuit controls the at least one of a first and second voltages only when a difference of the first and second temperatures exceeds a second preset value.

8. (Original) The electronic circuit of claim 1, wherein the first resistance of the first MOSFET is the RDSon of the first MOSFET and the second resistance of the second MOSFET is the RDSon of the second MOSFET.

9. (Original) The electronic circuit of claim 1, wherein the electronic circuit is a power module in particular for the use in automotive applications.

10. (Currently amended) Method of operating a first MOSFET and a second MOSFET,

wherein the first MOSFET and the second MOSFET are arranged parallel to each other, wherein the first MOSFET has a first resistance when it is switched on and the second MOSFET has a second resistance when it is switched on, the method comprising the step of: individually controlling at least one of the first resistance of the first MOSFET and the second resistance of the second MOSFET based on a temperature measurement of at least one of the first and second MOSFETs.

11. (Original) The method of claim 10, further comprising the step of: individually controlling at least one of a first gate voltage of the first MOSFET and a second gate voltage of the second MOSFET to thereby control at least one of the first resistance of the first MOSFET and the second resistance of the second MOSFET such that the first and second resistances are adjusted to each other.

12. (Currently amended) The method of claim 11, further comprising the steps of: measuring at least one of a first current flowing through the first MOSFET and a second current flowing through the second MOSFET individually controlling the at least one of the first and second voltages on the basis of at least one of the first and second currents and the at least one temperature measurement.

13. (Original) The method of claim 11, further comprising the steps of: measuring at least one of a first temperature of the first MOSFET and a second temperature of the second MOSFET; individually controlling the at least one of a first and second voltages on the basis of the at least one of the first and second temperatures.

14. (Original) The method of claim 13, further comprising the step of: controlling the at least one of a first and second voltages only when one of the first and second temperatures exceeds a first preset threshold value.

15. (Original) The method of claim 13, further comprising the steps of: measuring the first temperature and the second temperature; and individually controlling the at least one

of a first and second voltages only when a difference of the first and second voltages exceeds a second preset value.